

Infant mortality
is the death of a child prior to the first birthday.

What is infant mortality?

Indicators of community health are often expressed in terms of morbidity (various illnesses) or mortality (deaths caused by various conditions). Infant mortality is the death of a child before the first birthday. There are various causes for infant mortality.

Why is infant mortality an important health issue for Detroiters?

One baby dying is "one too many." Infant mortality is a tragedy for the family and for the community around them. A high number of infant deaths reflects the health of women and children, and the overall health status of the population to which they belong. The factors that contribute to high numbers of infant deaths cannot be fully explained by rates and numbers. Biological, psychosocial, environmental and even historical elements call for a multi-level analysis in considering infant death prevention strategies. The attention of Detroit residents and community organizations may generate efforts to change behaviors that are associated with risk for infant death.

Infant Mortality in Detroit

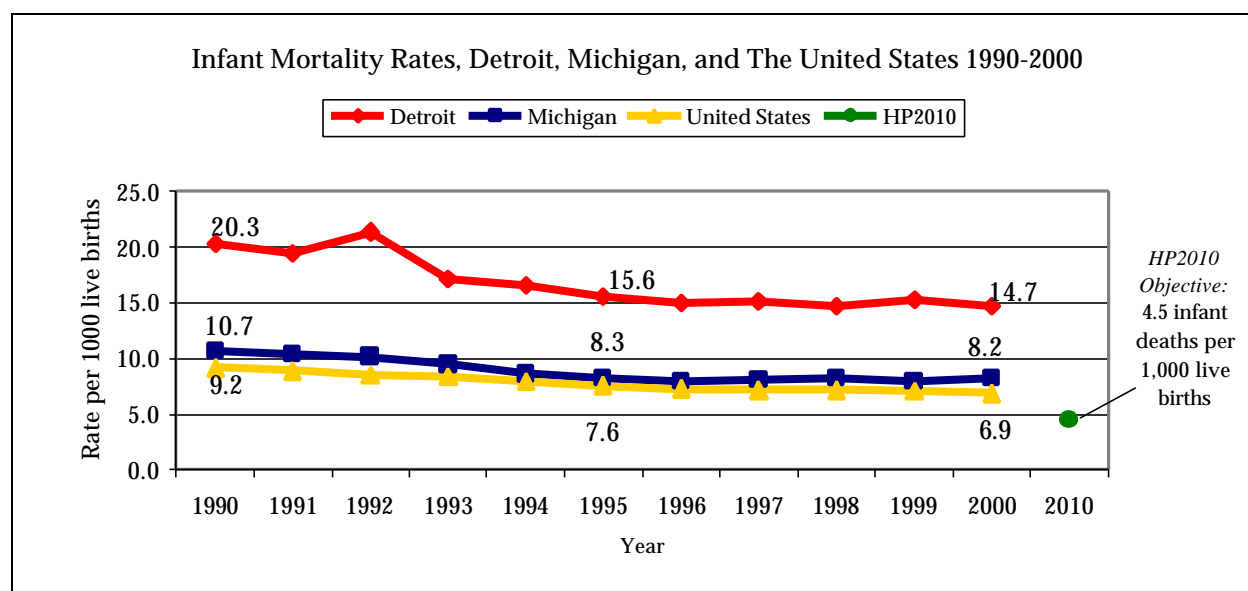


Figure 2

The number of infant deaths varies across populations due to different characteristics among the people who comprise them. A standard rate is used to compare the impact of infant mortality across communities of different sizes. The infant mortality rate is calculated per 1000 live births in the population.

The infant mortality rate for Detroiters has been consistently higher than those of the state and the country. As shown in Figure 2, from 1995 to 2000, deaths for babies in Detroit have more than doubled the rate for the United States and nearly double the rate for Michigan. The infant mortality rate for the United States in 2000 was 6.9. In the State of Michigan, 1,112 infants under

the age of one year died, resulting in an infant mortality rate of 8.2 per 1,000 live births in 2000. In 2000, 233 infants died in Detroit, creating an infant mortality rate of 14.7 per 1000 live births.

As described by the Michigan Department of Community Health (MDCH), disparity between the Black infant mortality rate and the rate for White infants continues. The 2000 infant mortality rate for Black residents of Michigan is comparable to that of White Michiganders prior to 1971. A Black infant in the State is 3 times more likely to die than a White infant. For the year 2000 the Black infant death rate was 18.2 while the White infant death rate was 6.0. In Detroit, the 1998-2000 moving average for Black infant deaths is 16.7. The White moving average for the same years is 6.3. A Black infant in Detroit is 2.6 times more likely to die than a White infant in the city.

Further, after seeing significant declines in mortality for both White and Black infants during the early 1990s, in recent years the White rate has continued to decline, while the Black infant death rate increased from 16.8 in 1998 to 18.2 in 2000 (White residents of the state had a 2000 infant mortality rate of 6.0.) Disparate rates of infant mortality for White residents and Black residents are mirrored in Detroit with White residents suffering a rate of 7.4 and Black residents 16.2.

As reflected by 2000 data, the leading cause of death for Detroit infants was premature delivery. An infant born prematurely often weighs less than 2500 grams (5.5 pounds) and is considered to be low birthweight. Low birthweight babies tend to be delivered pre-term (delivery prior to 37 weeks gestation) or to have grown too slowly in utero. Nearly 80% of the Detroit infants who died in 2000 were low birthweight. As shown in Figure 3, 13.9 % of 15, 891 Detroit babies were low birthweight, placing them at higher risk for death.

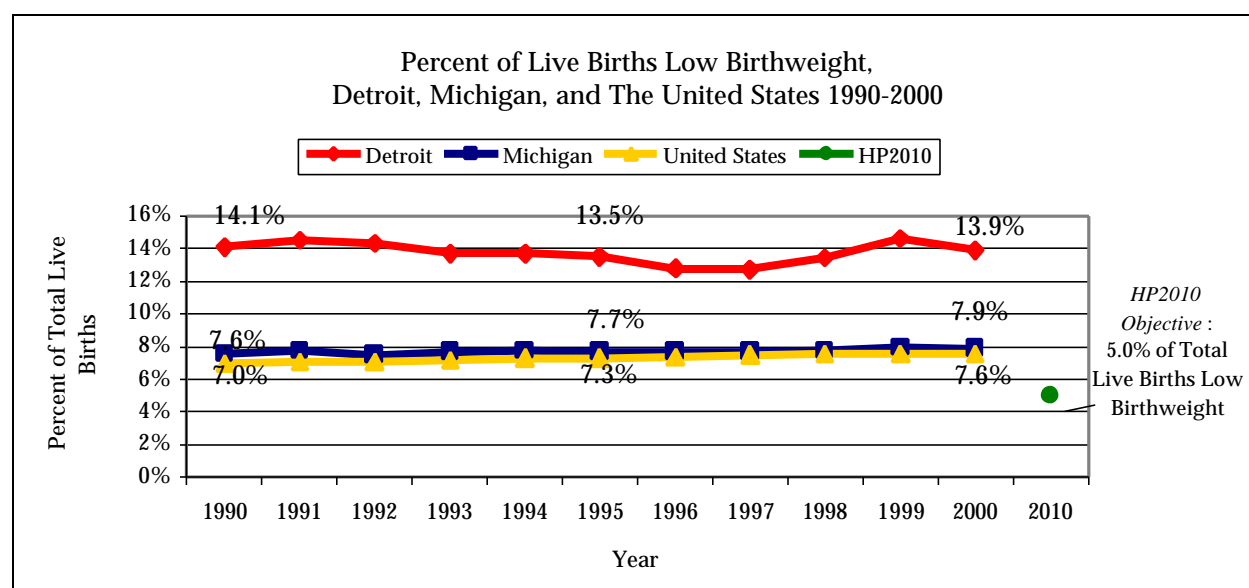


Figure 3

Some of the precursors of low birthweight include preterm delivery, maternal hypertension, maternal anemia, low maternal weight gain, maternal lead exposure, no prenatal care,

substance abuse, and sexually transmitted disease. Low birthweight has been identified as the "...single most important predictor of infant mortality."³ For that reason, many interventions for infant mortality prevention target low birthweight as the outcome to improve.

The second leading cause of Detroit infant deaths in 2000 was Sudden Infant Death Syndrome (SIDS). Sometimes known as "crib death," SIDS is the sudden death of an infant, which remains unexplained after a thorough case investigation. This investigation should include rigorous examination of the death scene immediately after the incident and with as little change in the scene as possible. A thorough investigation for the cause of infant death when SIDS is suspected includes an autopsy, and a review of the clinical and social history of the child.

SIDS risk factors with the greatest potential for change in the care of the infant include a prone sleeping position, sleeping on soft bedding, maternal smoking, and overheating. A growing concern in the Detroit area is that other causes of death may be identified as SIDS. For example, in instances of bed sharing, another individual overlaying may cause the child to suffocate. In this instance, the death of an infant could be explained, if witnessed, and is preventable.⁴

Fetal Deaths

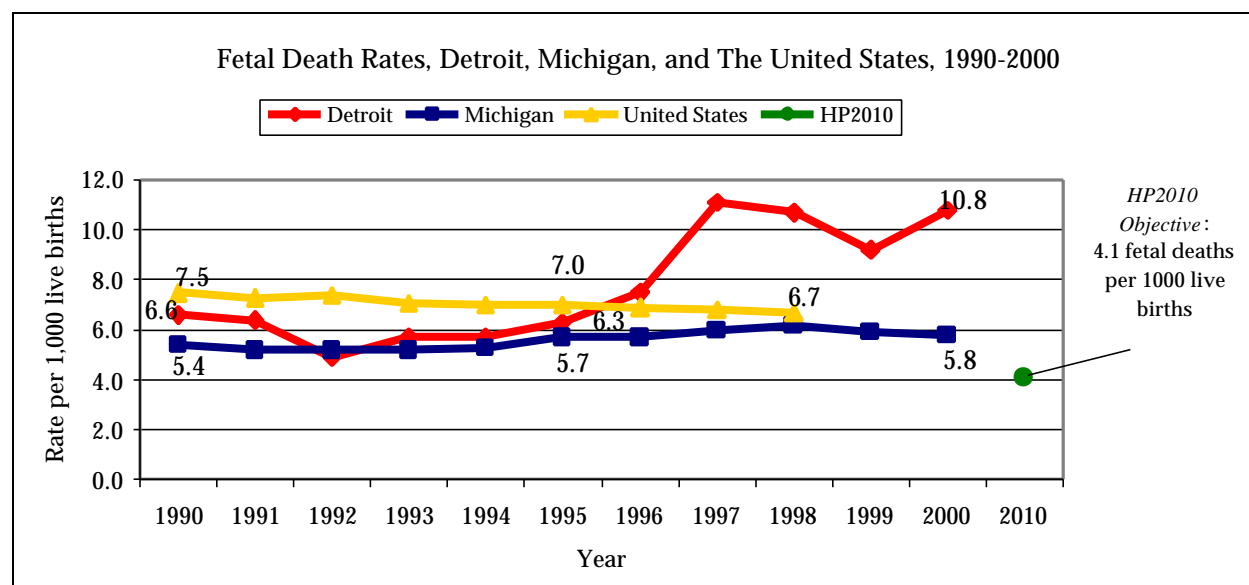


Figure 4

Fetal death, also known as "stillbirth" and associated with "miscarriage", is the death of the fetus before it reaches maturity or is delivered. For data use purposes, fetal deaths are classified according to *gestational age*, or the duration of the pregnancy. For the *Profile*, fetal deaths with gestation of 20 weeks or more are represented in the data. As shown in Figure 4, the Healthy People 2010 objective for fetal deaths is 4.1 deaths (20 weeks of gestation or more). Michigan rates of fetal death have been below the national rate, for which the most recent statistic to date is 6.7 deaths (1998).

Though the rate of infant mortality is decreasing, constant effort is needed to decrease fetal *and* infant mortality. Fetal death rates for Detroit have increased from 9.2 in 1999 to 10.8 in 2000. In past years, most communities have focused upon the numbers and rates of infant mortality without fetal deaths. Recently, using the Perinatal Periods of Risk model, public health practitioners have begun to look at fetal and infant deaths together. Considering data from fetal and infant mortality may be more indicative of ways to design effective community interventions and improve maternal and child health overall.